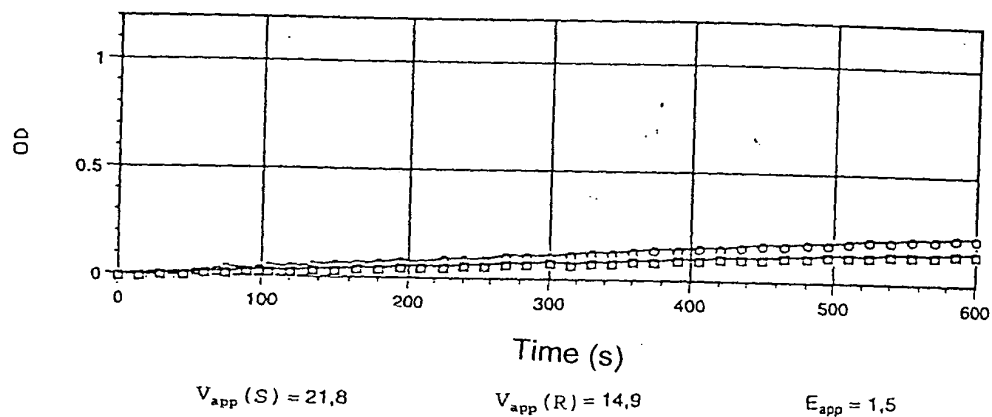
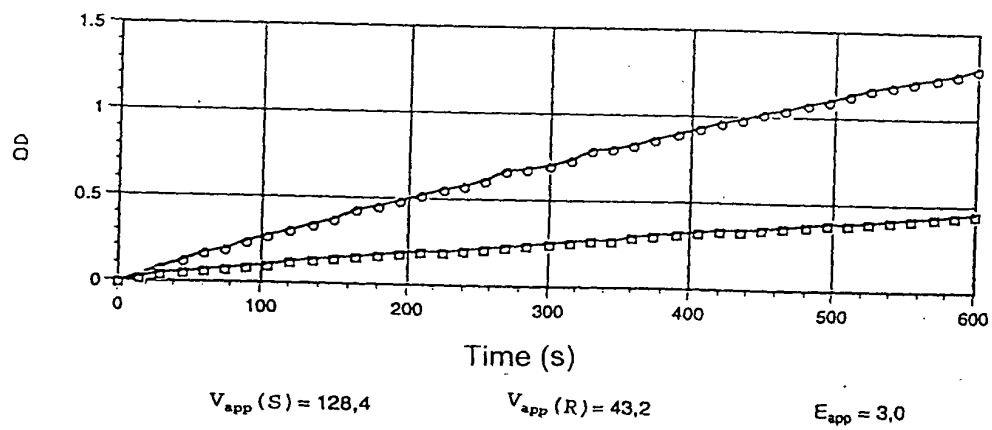
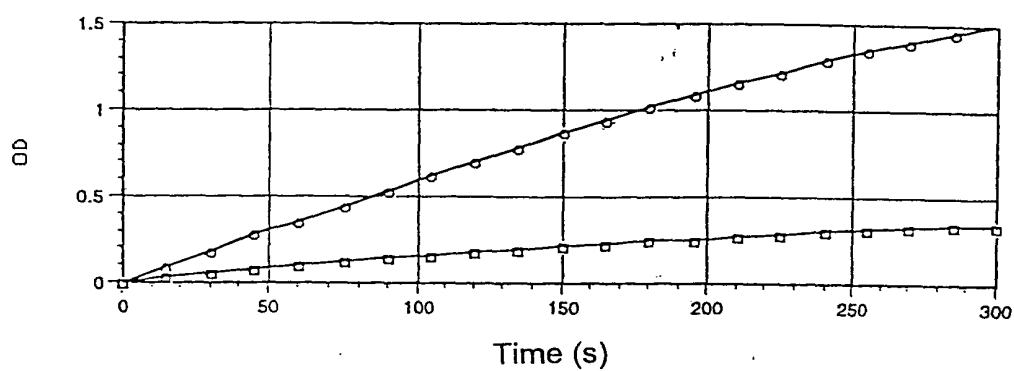


Fig. 1

Wild typeP1B 01-E4

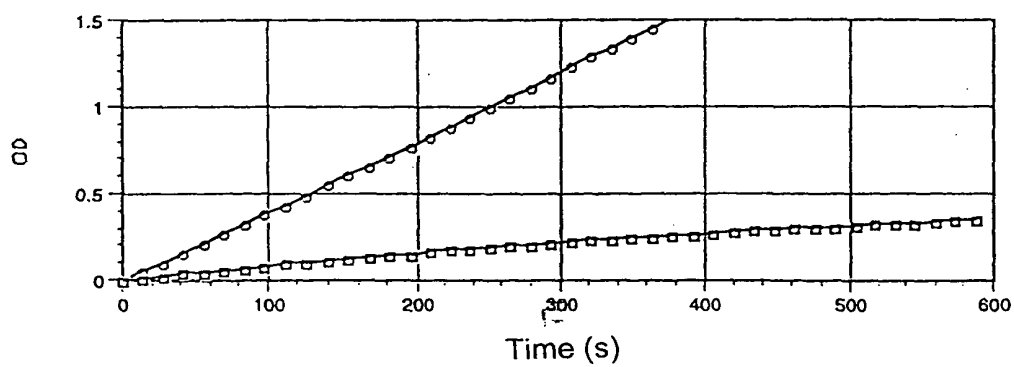
2/13

P2B 08-H3

$$V_{app}(S) = 310,8$$

$$V_{app}(R) = 67,4$$

$$E_{app} = 4,6$$

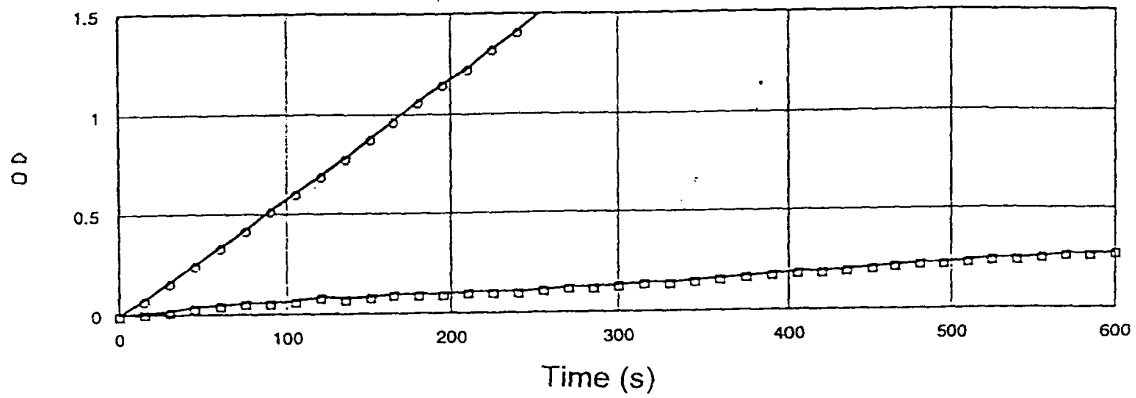
P3B 13-D10

$$V_{app}(S) = 241,1$$

$$V_{app}(R) = 35,2$$

$$E_{app} = 6,9$$

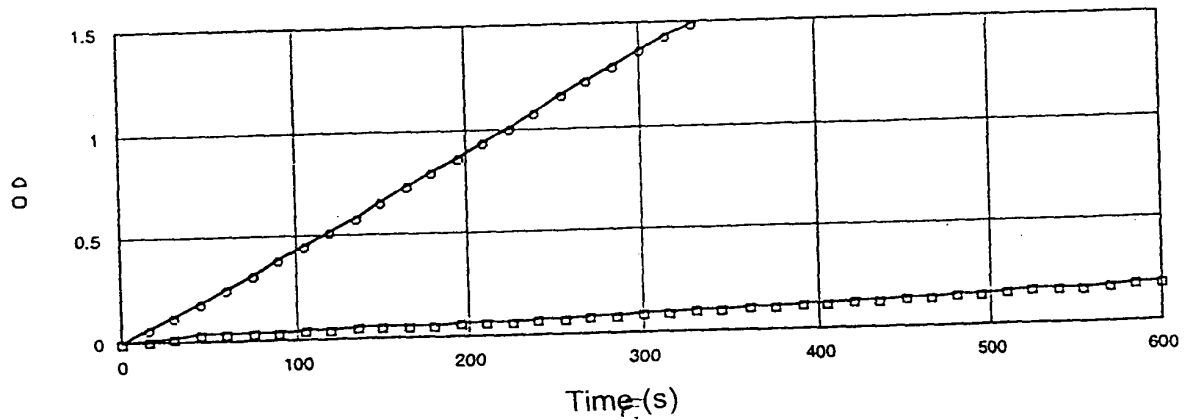
3/13

P4B 04-H3

$$V_{app}(S) = 355,6$$

$$V_{app}(R) = 26,5$$

$$E_{app} = 13,4$$

P5B 14-C11

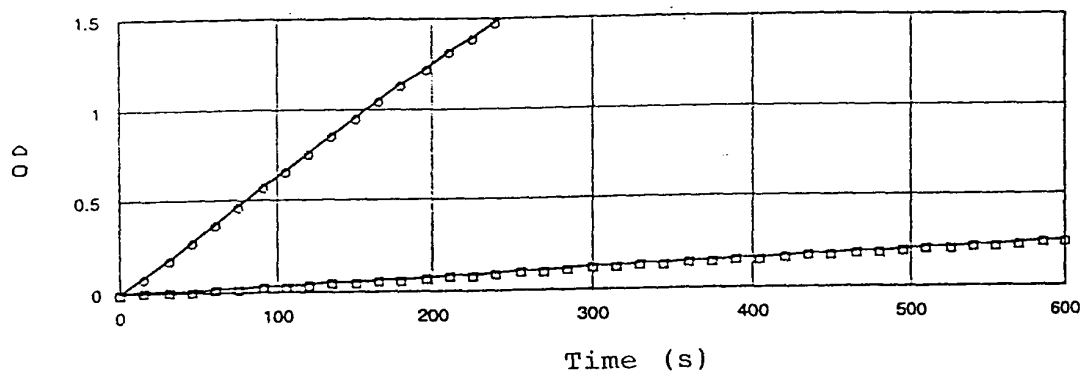
$$V_{app}(S) = 275,9$$

$$V_{app}(R) = 17,3$$

$$E_{app} = 15,9$$

005270" 464E9460

4/13

P4BSF 03-G10 $V_{app}(S) = 384,7$  $V_{app}(R) = 25,3$  $E_{app} = 15,2$ 

005270" 464E9460

5/13

Fig. 2

Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

										10
G	G	A	T	C	C	C	C	C	G	19
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20

Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

										20
A	A	G	G	A	T	T	C	G	G	39
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40

Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

										40
G	C	A	G	G	A	C	G	C	G	59
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60

Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

										60
C	C	A	T	C	A	A	C	C	T	79
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80

Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

										80
C	A	A	C	A	T	G	A	A	G	99
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100

Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

										100
T	G	C	T	C	C	C	C	C	T	119
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120

005270-463494

6/13

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

120										130										
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	139
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

140																150															
T	G	C	C	A	G	C	C	C	T	C	T	G	A	T	C	C	A	G	G	159											
T	G	C	C	A	G	C	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160										
T	G	C	C	A	G	C	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160										
T	G	C	C	A	G	C	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160										
T	G	C	C	A	G	C	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160										
T	G	C	C	A	G	C	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160										
T	G	C	C	A	G	C	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160										
T	G	C	C	A	G	C	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160										

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

160													170													
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	A	G	A	C	C	179						
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	C	A	G	A	C	C	180					
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	C	A	G	A	C	C	180					
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	C	A	G	A	C	C	180					
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	C	A	G	A	C	C	180					
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	C	A	G	A	C	C	180					
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	C	A	G	A	C	C	180					
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	C	A	G	A	C	C	180					

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

180													190													
A	A	A	T	A	C	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	199					
A	A	A	T	A	C	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200					
A	A	A	T	A	C	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200					
A	A	A	T	A	C	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200					
A	A	A	T	A	C	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200					
A	A	A	T	A	C	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200					
A	A	A	T	A	C	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200					
A	A	A	T	A	C	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200					

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

200													210													
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G		219					
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G		220					
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G		220					
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G		220					
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G		220					
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G		220					
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G		220					
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G		220					

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

220													230													
A	C	A	A	C	A	T	C	C	T	C	G	G	G	G	T	C	G	A	C	239						
A	C	A	A	C	A	T	C	C	T	C	G	G	G	G	T	C	G	A	C	240						
A	C	A	A	C	A	T	C	C	T	C	G	G	G	G	T	C	G	A	C	240						
A	C	A	A	C	A	T	C	C	T	T	G	G	G	G	T	C	G	A	C	240						
A	C	A	A	C	A	T	C	C	T	T	G	G	G	G	T	C	G	A	C	240						
A	C	A	A	C	A	T	C	C	T	T	G	G	G	G	T	C	G	A	C	240						
A	C	A	A	C	A	T	C	C	T	T	G	G	G	G	T	C	G	A	C	240						
A	C	A	A	C	A	T	C	C	T	T	G	G	G	G	T	C	G	A	C	240						

005270" 464E9460

7/13

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

240	250	
T A C T G G T T C G G C A T T C C C A G	259	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

260	270	
C G C C T T G C G C C G T G A C G G T G	279	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

280	290	
C C C A G G T C T A C G T C A C C G A A	299	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

300	310	
G T C A G C C A G T T G G A C A C C T C	319	
G T C A G C C A G T T G G A C A C C T C	320	
G T C A G C C A G T T G G A C A C C T C	320	
G T C A G C C A G T T G G A C A C C T C	320	
G T C A G C C A G T T G G A C A C C T C	320	
G T C A G C C A G T T G G A C A C C T C	320	
G T C A G C C A G T T G G A C A C C T C	320	
G T C A G C C A G T T G G A C A C C T C	320	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

320	330	
G G A A G T C C G C G G C G A G C A G T	339	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

340	350	
T G C T G C A A C A G G T G G A G G A A	359	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	

005270" 164E9460

8/13

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

360																	370			
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	379
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

380													390													
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	399						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

400													410													
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	C	C	G	419							
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	C	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

420										430										
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	439
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	440
A	C	C	A	T	C	C	G	G	C	T	A	C	G	T	C	G	C	C	G	440
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	440
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	440
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	440
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	440
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	440

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

440													450													
C	G	T	A	C	G	T	C	C	C	G	A	C	C	T	G	A	T	C	G	459						
C	G	T	A	C	G	T	C	C	C	G	A	C	C	T	G	A	T	C	G	460						
C	G	T	A	C	G	T	C	C	C	G	A	C	C	T	G	A	T	C	G	460						
C	G	T	A	C	G	T	C	C	C	G	A	C	C	T	G	A	T	C	G	460						
C	G	T	A	C	G	T	C	C	C	G	A	C	C	T	G	A	T	C	G	460						
C	G	T	A	C	G	T	C	C	C	G	A	C	C	T	G	A	T	C	G	460						
C	G	T	A	C	G	T	C	C	C	G	A	C	C	T	G	A	T	C	G	460						
C	G	T	A	C	G	T	C	C	C	G	A	C	C	T	G	A	T	C	G	460						

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

460																470				
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	479
C	T	T	C	C	G	C	C	A	<span style="border: 1px solid black;">T</span>	C	A	G	C	G	T	C	G	G	C	480
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480

005220" 16429460



9/13

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

480	490	
G C C C C G C A C A A G G G T T C G G A	499	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

500	510	
C A C C G C C G A C T T C C T G C G C C	519	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

520	530	
A G A T C C C A C C G G T T C G G C C	539	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	

## Wild type

P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

540	550	
G G C G A G G C A G T C C T C T C C G G	559	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

560	570	
G C T G G T C A A C A G C C T C G G C G	579	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

580	590	
C G C T G A T C A G C T T C C T T T C C	599	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	

005220" 463494 09

10/13

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

600	610										
A	G	C	G	G	C	A	G	C	A	C	619
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

620	630										
G	A	A	T	T	C	A	C	T	G	G	639
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

640	650										
A	G	T	C	G	C	T	G	A	A	C	659
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

660	670										
G	C	C	G	C	G	C	G	C	T	T	679
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

680	690										
G	T	A	C	C	C	G	C	A	G	G	699
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

700	710										
C	C	T	C	G	G	C	C	T	G	C	719
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720

005240" 464E9460

11/13

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

720	730	
G C C T A C A A G G T C A A C G G C G T	739	
G C C T A C A A G G T C A A C G G C G T	740	
G C C T A C A A G G T C A A C G G C G T	740	
G C C T A C A A G G T C A A C G G C G T	740	
G C C T A C A A G G T C A A C G G C G T	740	
G C T T A C A A G G T C A A C G G C G T	740	
G C T T A C A A G G T C A A C G G C G T	740	
G C C T A C A A G G T C A A C G G C G T	740	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

740	750	
G A G C T A T T A C T C C T G G A G C G	759	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

760	770	
G T T C C T C G C C G C T G A C C A A C	779	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

780	790	
T T C C T C G A T C C G A G C G A C G C	799	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

800	810	
C T T C C T C G G C G C C T C G T C G C	819	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

820	830	
T G A C C T T C A A G A A C G G C A C C	839	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	

005220" 1649460

12/13

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

840	850	
G C C A A C G A C G G C C T G G T C G G		859
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

860	870	
C A C C T G C A G T T C G C A C C T G G		879
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

880	890	
G C A T G G T G A T C C G C G A C A A C		899
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

900	910	
T A C C G G A T G A A C C A C C T G G A		919
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

920	930	
C G A G G T G A A C C A G G T C T T C G		939
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

940	950	
G C C T C A C C A G C C T G T T C G A G		959
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960

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13/13

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

T																				
960						970														
A	C	C	A	G	C	C	C	G	G	T	C	A	G	C	G	T	C	T	A	979
A	C	C	A	G	C	C	C	G	G	T	C	A	G	C	G	T	C	T	A	980
A	C	C	A	G	C	C	C	G	G	T	C	A	G	C	G	T	C	T	A	980
A	C	C	A	G	C	C	C	G	G	T	C	A	G	C	G	T	C	T	A	980
A	C	C	A	G	C	C	C	G	G	T	C	A	G	C	G	T	C	T	A	980
A	C	C	A	G	C	C	C	G	G	T	C	A	G	C	G	T	C	T	A	980
A	C	C	A	G	C	C	C	G	G	T	C	A	G	C	G	T	C	T	A	980

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

980										990										
C	C	G	C	C	A	G	C	A	C	G	C	C	A	A	C	C	G	C	C	999
C	C	G	C	C	A	G	C	A	C	G	C	C	A	A	C	C	G	C	C	1000
C	C	G	C	C	A	G	C	A	C	G	C	C	A	A	C	C	G	C	C	1000
C	C	G	C	C	A	G	C	A	C	G	C	C	A	A	C	C	G	C	C	1000
C	C	G	C	C	A	G	C	A	C	G	C	C	A	A	C	C	G	C	C	1000
C	C	G	C	C	A	G	C	A	C	G	C	C	A	A	C	C	G	C	C	1000
C	C	G	C	C	A	G	C	A	C	G	C	C	A	A	C	C	G	C	C	1000
C	C	G	C	C	A	G	C	A	C	G	C	C	A	A	C	C	G	C	C	1000
C	C	G	C	C	A	G	C	A	C	G	C	C	A	A	C	C	G	C	C	1000

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

1000										1010										
T	G	A	A	G	A	A	C	G	C	C	A	G	C	C	T	G	T	A	G	1019
T	G	A	A	G	A	A	C	G	C	C	A	G	C	C	T	G	T	A	G	1020
T	G	A	A	G	A	A	C	G	C	C	A	G	C	C	T	G	T	A	G	1020
T	G	A	A	G	A	A	C	G	C	C	A	G	C	C	T	G	T	A	G	1020
T	G	A	A	G	A	A	C	G	C	C	A	G	C	C	T	G	T	A	G	1020
T	G	A	A	G	A	A	C	G	C	C	A	G	C	C	T	G	T	A	G	1020
T	G	A	A	G	A	A	C	G	C	C	A	G	C	C	T	G	T	A	G	1020
T	G	A	A	G	A	A	C	G	C	C	A	G	C	C	T	G	T	A	G	1020

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

1020										1030										
G	A	C	C	C	C	G	G	C	C	G	G	G	G	C	T	C	G	G	1039	
G	A	C	C	C	C	G	G	C	C	G	G	G	G	C	T	C	G	G	1040	
G	A	C	C	C	C	G	G	C	C	G	G	G	G	C	T	C	G	G	1040	
G	A	C	C	C	C	G	G	C	C	G	G	G	G	C	T	C	G	G	1040	
G	A	C	C	C	C	G	G	C	C	G	G	G	G	C	T	C	G	G	1040	
G	A	C	C	C	C	G	G	C	C	G	G	G	G	C	T	C	G	G	1040	
G	A	C	C	C	C	G	G	C	C	G	G	G	G	C	T	C	G	G	1040	
G	A	C	C	C	C	G	G	C	C	G	G	G	G	C	T	C	G	G	1040	

## Wild type

P1B 01-H1  
P1B 01-E4  
P2B 08-H3  
P3B 13-D10  
P4B 04-H3  
P5B 14-C11  
P4BSF 03-G10

1040	
C C C G G G C C	1047
C C C G G G C C C	1049
C C C G G G C C C	1049
C C C G G G C C C	1049
C C C G G G C C C	1049
C C C G G G C C C	1050
C C C G G G C C C	1049
C C C G G G C C C	1049

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